

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re:	Marillonnet <i>et al.</i>	Confirmation No.:	1908
Appl No.:	10/586,998	Group Art Unit:	1638
Filed:	July 21, 2006	Examiner:	Zheng, Li
For:	TWO-COMPONENT RNA VIRUS-DERIVED PLANT EXPRESSION SYSTEM		

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO RESTRICTION REQUIREMENT

This is in response to the Office Action dated December 23, 2008, in which the Examiner has required restriction between:

Group I, namely Claims 1-8 and 12-17 drawn to a system for replicating or for replicating and expressing a sequence of interest;

Group II, namely Claims 1-5, 9, and 12-16 drawn to a system for replicating or for replicating and expressing a sequence of interest;

Group III, namely Claims 1-5, 10, and 12-16 drawn to a system for replicating or for replicating and expressing a sequence of interest;

Group IV, namely Claims 1-5, 11, and 12-16 drawn to a system for replicating or for replicating and expressing a sequence of interest;

Group V, namely Claims 1-5, 12-16 and 18-19 drawn to a system for replicating or for replicating and expressing a sequence of interest;

Group VI, namely Claims 1-5, 12-16, and 20-21, drawn to a system for replicating or for replicating and expressing a sequence of interest;

Group VII, namely Claims 1-5, 12-16, and 22-24 drawn to a system for replicating or for replicating and expressing a sequence of interest;

Group VIII, namely Claims 25-29 drawn to a process for replicating or for replicating and expressing a sequence of interest in a plant; and

Group IX, namely Claims 30-32 drawn to a process for replicating or for replicating and expressing a sequence of interest in a plant.

Applicants hereby provisionally elect with traverse to prosecute the claims of Group I (Claims 1-8 and 12-17) and expressly reserve the right to file divisional applications or take such other appropriate measures deemed necessary to protect the inventions in the remaining claims and in the non-elected subject matter of the elected claims.

Applicants, however, respectfully disagree with the Restriction Requirement because the application, in contrast to the position stated the Office Action, does not lack unity of invention for the reasons set forth below. Therefore, Applicants respectfully request that the Examiner reconsider the requirement for restriction and examine all of the claims together in the present application.

The Office Action indicates that the inventions of Groups I-IX do not relate to a single general inventive concept under PCT Rule 13.1 because under PCT Rule 13.2, the inventions of Groups I-IX lack the same or corresponding technical features. The Office Action indicates on page 3 that the technical feature linking the inventions of Groups I-IX is the product of claim 1 or the process of claim 25 and alleges that both the product and process are anticipated by Lough *et al.* (Virology, 2001, 288-18-28). The Office Action indicates that Lough *et al.* teach that a DNA encoding a movement-deficient WCIMV mutant is co-transformed with another DNA encoding the movement protein TGB1-3, that the co-transformation of both DNAs allows systemic infection of the WCIMV in the tobacco plant, that GFP is considered as the gene of interest to be expressed, and that WCIMV is a +ss RNA virus. The Office Action asserts that this technical feature does not constitute a special technical feature as defined by the PCT Rule 13.2 because it does not define a contribution over the prior art.

The Examiner appears to have misunderstood Applicants' claimed invention, and that misunderstanding has caused the Examiner to mistakenly characterize claims 1 and 25 as being anticipated by Lough *et al.* In contrast to the teachings of Lough *et al.*, claims 1 and 25 are drawn to a system and a process, respectively, wherein a DNA precursor of the RNA replicon contains or encodes **one or more introns**. Thus, Lough *et al.* fails to anticipate claims 1 and 25 because this document does not teach that the special technical feature of a DNA precursor of the RNA replicon containing one or more introns. Accordingly, the instant application meets the unity of invention requirement of PCT Rule 13.1.

Furthermore, Applicants' claimed invention defines a contribution over the prior art that is neither anticipated by nor obvious in view of Lough *et al.* as explained in the following paragraph.

RNA viruses typically replicate in the cytosol of cells, for which RNA viruses are optimized by evolution. If RNA replicons are provided to cells or plants via DNA precursors, transcription of the DNA precursors has to take place inside cell nuclei where transcripts are exposed to the nuclear RNA processing machinery. However, RNA viruses are not optimized to the plant nuclear RNA processing machinery. It is a contribution of the inventors to have recognized the causal connection between the low frequencies of the RNA replicon formation in cells when transcribed from DNA precursors and the lack of optimization of RNA replicons to the plant RNA processing machinery. It is a further contribution of the inventors to have found possibilities to adapt DNA precursors of RNA replicons to the nuclear RNA processing machinery.

In summary, Lough *et al.* does not disclose the system of claim 1 and the process of claim 25, nor does Lough *et al.* suggest the effect underlying the present invention. Lough *et al.* is a scientific study directed to the movement of viruses within plants. Accordingly, Lough *et al.* does not anticipate claims 1 and 25.

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Reply to Restriction Requirement of December 23, 2008

For the above reasons, Applicants submit that the Restriction Requirement is improper and should be withdrawn because the present application relates to a single general inventive concept under PCT Rule 13.1 and therefore, satisfies the requirement of unity of invention. Accordingly, Applicants respectfully request that the Examiner examine all of the claims together in the instant application.

Should the Examiner have further questions or comments with respect to examination of this case, it is respectfully requested that the Examiner telephone the undersigned so that further examination of this application can be expedited.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those, which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

/david m. saravitz/

David M. Saravitz
Registration No. 55,593

CUSTOMER No. 00826
ALSTON & BIRD LLP
Bank of America Plaza
101 South Tryon Street, Suite 4000
Charlotte, NC 28280-4000
Tel Raleigh Office (919) 862-2200
Fax Raleigh Office (919) 862-2260

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